

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***PERMIT STATEMENT OF BASIS***

CONSTRUCTION/TITLE V OPERATION NO. V-99-016

CELOTEX CORPORATION

CARROLLTON, KY.

APRIL 28, 2000

THOMAS ADAMS, REVIEWER

PLANT I.D. # 079-0580-0040

APPLICATION LOG # G003

**SOURCE DESCRIPTION:**

Celotex is applying to construct a new facility to manufacture gypsum wall board. Wet Gypsum produced in Flue Gas Desulfurizers is first dried in a Flash dryer and then sent to a kettle calciner. The resulting stucco is then mixed with various additives and foaming agents to form a paste. This paste is sandwiched between paper coating and the mixture is "dried" to remove excess water and to recrystallize into gypsum. The boards are then trimmed, marked and stacked.

**COMMENTS:**

*Regulations:*

The source is major for Title V and is minor for 401 KAR 51:017 (PSD) purposes. This permit is being issued as a combined NSR/Title V permit. The source is subject to:

1. 40 CFR 60 Subpart OOO as adopted by Regulation 401 KAR 59:310. New nonmetallic mineral processing plants
2. 40 CFR 60 Subpart UUU as adopted by Regulation 401 KAR 60:730 Standards of performance for calciners and dryers in mineral industries
3. 401 KAR 59:010 New process operations

The FGD Dryers and Reclaim dryers are not subject to 40 CFR 60 Subpart UUU as they are combination dryers/crushers and 40 CFR 630(b) exempts grinding equipment that also dries.

*Emission factors:*

Emission factors for PM/PM10 are based on experience and source testing from Celotex's other gypsum board plants or from AP-42 for gypsum and similar operations. For products of combustion carbon monoxide and nitrogen oxides emission factors are based on manufacturers' specification, VOC and SO2 are based on AP-42.

*Compliance periods:*

Opacity demonstration of compliance in 40 CFR 60 Subpart UUU is based on 10 6-minute tests. Therefore, the compliance averaging period is one hour for opacity from a Subpart UUU facility. Subpart OOO facilities have a compliance averaging period of six minutes.

**GHENT DEWATERING STATION:**

Since the original application, the source has sent in a registration to construct a stand alone dewatering station for the gypsum slurry at the Ghent Power Station. The Ghent Power Station is currently one of Celotex's suppliers of FGD synthetic Gypsum being used at the Celotex facility. The dewatering station is a support facility that is under common control with the source. Regulation 401 KAR 50:035 defines a stationary source as "... that supports another source, if both are under common control of the same person (or persons under common control) and on contiguous or adjacent properties, shall be considered a support facility and part of the same source regardless of the two (2)-digit SIC code for that support facility. A stationary source (or group of stationary sources) is considered a support facility to a source if at least fifty (50) percent of the output of the support facility is dedicated to the source."

**EMISSION AND OPERATING CAPS DESCRIPTION:**

The division has determined that the source does not have the potential to exceed the PSD major source thresholds. To confirm the manufacturer's estimate for NO<sub>x</sub> and CO at the facility, the permit requires confirmatory performance testing at the largest sources.

**PERIODIC MONITORING**

Controls are exclusively for PM/PM<sub>10</sub>. They consist of small fabric filters for additive bin vents and large baghouses on other process units. Monitoring of the smaller units is to consist of a weekly check and log of pressure drops. The Kettle Calciners are exempted from COMs, but the regulation contained no guidance for periodic monitoring. Therefore, a weekly monitoring of the baghouse was chosen. The unit with the highest emission potential is a "stucco cooler" which is a heater exchanger to transfer heat from the stucco leaving the calciner to the incoming gypsum. A performance test will be required along with continuous monitoring of the pressure drop.

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.

**PUBLIC NOTICE AND COMMENTS:**

Public Notice was made on May 19, 1999 in the Carroll County News-Democrat. No comments were received from the public, the source, affected states or EPA. The division is issuing the permit without change except for the addition of one insignificant activity.